

The listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. **(Currently Amended)** A method for forming an optical blank, the method comprising:  
providing a solid porous green body, ~~the green body including a porous exterior portion and a porous interior portion;~~  
~~heating glazing the exterior portion porous green body to thereby form a non-porous exterior portion composite body having an exterior portion which is non-porous and an interior portion which is porous of the green body;~~  
~~forming evacuating the porous interior portion of the green body to thereby create a vacuum in the porous interior portion; and~~  
pressing the green composite body using a hot isostatic pressing technique, whereby the green composite body is densified into a solid glass optical blank.
2. **(Currently Amended)** The method of claim 1, wherein the step of providing ~~further~~ comprises:  
providing glass particles, the glass particles ~~being a mixture of~~ comprising glass soot and ground glass cullet;  
mixing the glass particles with water to form an aqueous suspension; and  
~~slip-casting the aqueous suspension to thereby form the porous green body.~~
3. **(Currently Amended)** The method of claim 2, wherein the glass soot particles are is formed as a by-product of a flame hydrolysis process.
4. **(Original)** The method of claim 2, wherein the aqueous suspension is a 70 weight percent glass particle suspension.
5. **(Currently Amended)** The method of claim 1, further comprising the step of cleaning the porous green body to remove impurities.

6. **(Currently Amended)** The method of claim 5, wherein the step of cleaning ~~further~~ comprises:

disposing the porous green body in a high temperature chlorine gas atmosphere, the high temperature being lower than a sintering temperature of the porous green body; and  
treating the porous green body by allowing the chlorine gas to react with the impurities for a pre-determined time.

7. **(Original)** The method of claim 6, wherein the high temperature is between 700°C and 1100°C.

8. **(Original)** The method of claim 1, wherein the aqueous suspension includes an ammonia hydroxide dispersant.

9. **(Currently Amended)** The method of claim 1, wherein the step of ~~evacuating further forming a vacuum~~ comprises:

fusing a stem onto the green composite body ~~having a composition similar to the green body~~;

exposing the porous interior portion of the green composite body;

drawing a vacuum on the porous interior portion of the composite body by evacuating the porous interior portion via the stem; and

hermetically sealing the green composite body.

10. **(Currently Amended)** A method for forming an optical blank, the method comprising:

~~providing glass particles, the glass particles being a mixture of glass soot and ground glass cullet~~;

mixing ~~the~~ glass particles comprising a glass soot with water to form an aqueous suspension;

pouring the aqueous suspension in a mold, the suspension being allowed to cast in the mold for a predetermined time, whereby a green body wall is formed;

removing ~~the~~ remaining aqueous suspension from the mold, ~~whereby the~~ to form a hollow porous green body interior portion is hollow;

drying the porous green body ~~to form a vitreous container having a porous interior glass wall, the vitreous container having a volume capacity;~~

heating the porous green body to form a composite body having a non-porous exterior portion and a porous interior portion, the porous interior portion defining a cavity;

disposing filling the vitreous container with a glass powder in the cavity, the glass powder having substantially the same material composition as the glass particles, a volume of the glass powder filling the vitreous container being substantially equal to the volume capacity of the vitreous container;

~~glazing or flame polishing the exterior portion to thereby form a non-porous exterior portion of the green body;~~

applying evacuating the porous interior portion to thereby create a vacuum to the cavity in the interior portion; and

pressing the green composite body using a hot isostatic pressing technique, whereby the green composite body is densified into a solid glass optical blank.

11. (Canceled)

12. (Original) The method of claim 10, wherein the aqueous suspension is a 70 weight percent glass particle suspension.

13. (Currently Amended) The method of claim 10, further comprising:

heating the composite body vitreous container to render the composite body vitreous container plastic, a temperature of the glass powder being raised to an appropriate compacting temperature;

applying external pressure to the composite body vitreous container, the external pressure collapsing the composite body vitreous container about the glass powder disposed within the composite body vitreous container, the glass powder being fully densified, whereby a solid glass optical blank is formed; and

cooling the densified solid glass optical blank.

14. **(Currently Amended)** The method of claim 13, wherein the step of applying includes hot isostatic pressing the composite body ~~vitreous container~~ at a temperature above the annealing point of the glass particles but below the softening point of the glass particles.

15. **(Currently Amended)** The method of claim 14, wherein the step of applying includes the step of raising the temperature of the composite body above the melting temperature of the glass particles to thereby remove any solid inclusions.

16. **(Canceled)**

17. **(Currently Amended)** The method of claim 10 ~~46~~, wherein the step of heating comprises exterior portion is flame polishing ~~polished to substantially eliminate surface porosity~~.

18. **(Currently Amended)** The method of claim 10 ~~46~~, wherein the aqueous suspension is a 50-70 weight percent glass particle suspension.

19. **(Canceled)**

20. **(Original)** The method of claim 1, wherein the step of providing is performed using a plaster mold.

21. **(Canceled)**

22. **(Canceled)**

23. **(Canceled)**

24. **(Canceled)**

25. **(Canceled)**

26. **(Canceled)**

27. **(Canceled)**

28. **(New)** The method of claim 1 wherein the porous interior portion defines a cavity.

29. **(New)** The method of claim 28 further comprising disposing a glass powder in the cavity.

30. **(New)** The method of claim 1 wherein the step of heating comprises flame polishing.

31. **(New)** A method for forming an optical blank comprising:

- providing a porous green body container;
- flame polishing an exterior portion of the container so as to enable the container to hold a vacuum;
- disposing a glass powder within the container;
- forming a vacuum within the container; and
- plastically deforming the container using a hot isostatic pressing technique, whereby the container is densified into a solid glass optical blank.

32. **(New)** The method of claim 31 further comprising the step of fusing a glass stem onto the container.

33. **(New)** The method of claim 32 wherein the step of forming a vacuum comprises heating and twisting the glass stem so as to seal the container.

34. **(New)** A method for forming an optical blank comprising:

- providing a porous green body comprising a glass soot;
- heating the body to form a non-porous exterior portion while maintaining a porous internal portion;
- fusing a glass stem to the body;

exposing the porous internal portion of the body through the glass stem;  
forming a vacuum in the porous internal portion of the body; and  
pressing the body using a hot isostatic pressing technique, whereby the body is densified into a solid glass optical blank.

35. **(New)** The method of claim 34 wherein the step of exposing comprises using an etchant.

36. **(New)** A method for forming an optical blank comprising:  
forming an aqueous suspension comprising a glass soot;  
casting the aqueous suspension in a mold to form a porous green body;  
heating the body to form a non-porous exterior portion of the body while maintaining a porous interior portion;  
forming a vacuum in the porous internal portion of the body;  
plastically deforming the body using a hot isostatic pressing technique, whereby the body is densified into a solid glass optical blank

37. **(New)** The method of claim 36 wherein the aqueous suspension further comprises ground glass cullet.

38. **(New)** The method of claim 36 further comprising treating the porous green body in an atmosphere comprising chlorine to remove impurities.